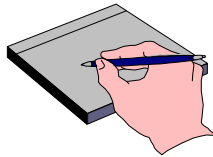


U.S. Department of Transportation

Training Evaluation Guide



U.S. Department of Transportation

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How to Use this Guide

This guide provides U.S. Department of Transportation (DOT) managers and supervisors with a tool to better understand their responsibility for evaluating learning and development activities (i.e. training programs). It is designed to be as short and succinct as possible, providing an efficient “turnkey” system for busy managers and supervisors who need a simple, straightforward summary.

There are two major reasons to evaluate learning and development activities:

- to gain information on how to improve the activity
- to decide whether to continue, expand, or eliminate the activity.

Throughout the public sector, there is a growing mandate to evaluate the effectiveness of learning and development activities, including training. For example, the Government Performance and Results Act of 1993 requires that every agency submit plans to Congress that contain performance measures tied to subsequent budget allocations.

Before a learning activity is offered or evaluated, it is important to begin with an up-front analysis of the performance problem. Pages 2 to 4 of this guide, beginning with “Is Training the Answer?,” include guidelines and flow charts to help with this up-front analysis. If training is the answer, the guide continues on page 5 by explaining the widely used model of “Four Levels of Training Evaluation”:

- Level 1 - Reaction
- Level 2 - Learning
- Level 3 - Transfer to the job
- Level 4 - Organizational impact

The next page is a checklist to help you decide “What level of training evaluation do you need?” The rest of the guide then provides details for each of the four levels, including:

- background
- job aid
- sample forms

This guide was intended to supplement existing DOT systems, not to replace them. The forms are samples which you can use “as is” or customize to meet your specific needs. Its goal is to help to ensure that every DOT training class is evaluated and that the evaluation data are used to improve training and performance.

Is Training the Answer?

Every effective evaluation process must begin with an up-front analysis of whether training is the best solution to a performance problem. In many cases, a supervisor may believe that non-performance issues occur because individuals do not have the proper competencies to do their job., There may, however, be other human resource and management issues that should be considered

Too often, training has been used to fix a problem which it cannot solve. When the non-performance issue is not resolved, the training program is deemed a failure. Therefore, an up-front diagnosis must first determine whether a problem requires a training solution or some other type of HRD intervention. The following chart illustrates one model that is widely used for this process.

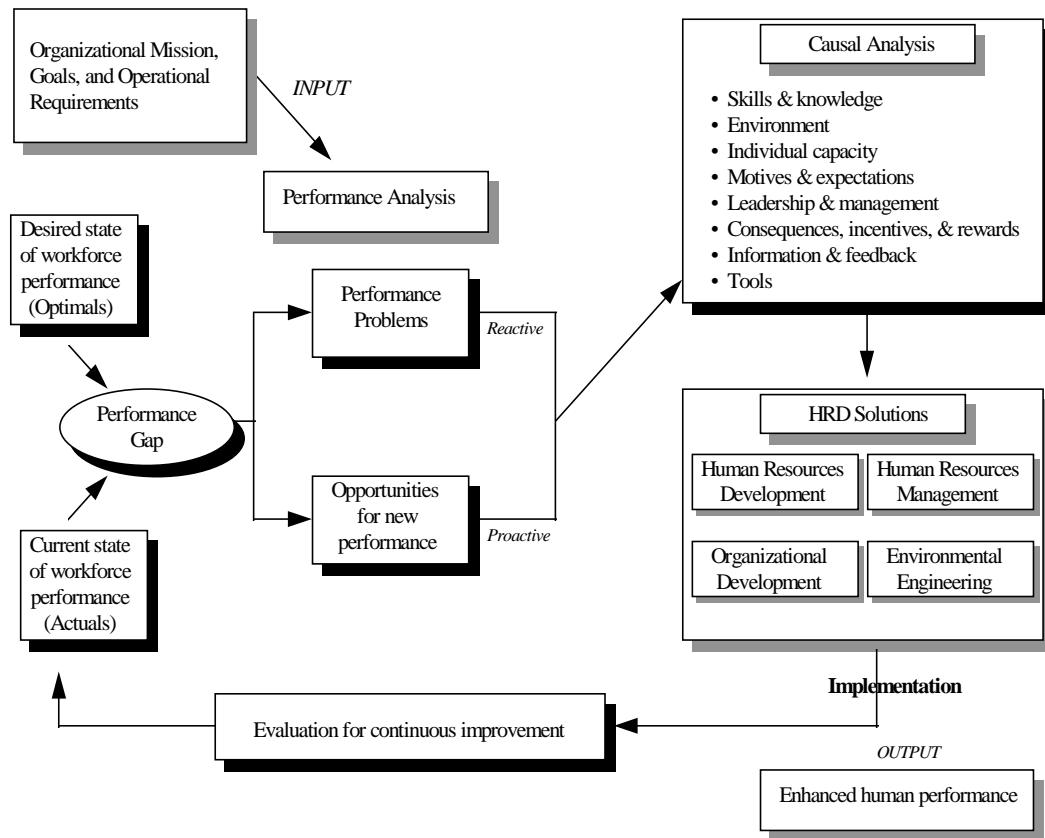


Figure 1: The Performance Development Process

Evaluating Performance Gaps

If there is a gap between the performance needed on the job and the actual performance, you will generally choose one of the following courses of action.

- If the performance gap is not important, ignore it.
- If the performance gap **is** the result of a skill deficiency that can be addressed by training, arrange a training solution.
- If the performance gap **is not** the result of a skill deficiency, apply other HRD solutions.

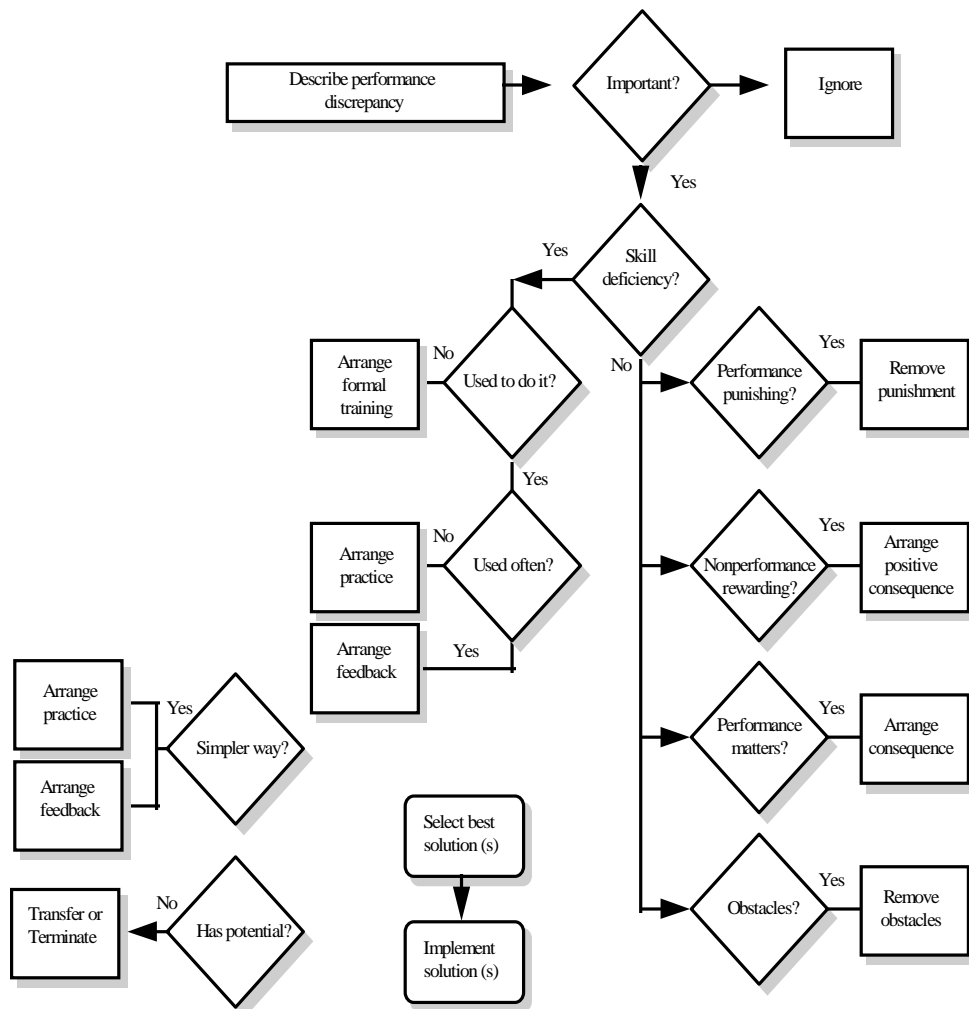


Figure 2: Evaluating Performance Discrepancies

If Training is the Answer, Determine Its Objectives

Once you determine that training can help to resolve a performance gap, you must define the training objectives.

According to an old saying, “If you don’t know where you’re going, you’ll never get there.” It is possible to fully evaluate a training programs only if you know what it was designed to accomplish. Course objectives are:

- a description of the performance you want people to exhibit after the training
- used to determine what gets taught and how
- used to measure student performance and competency
- a means to evaluate the success of the course

Course objectives are action statements. They contain descriptive words that are open to few interpretations and convey explicit intent. An objective has three parts:

- Performance - a statement describing what you expect the learner to be able to do
- Conditions - a description of any circumstances under which the performance occurs
- Criterion - a description of what is considered an acceptable level of performance

For example: Given a standard DOT workstation and software documentation, you will be able to type and print a one page letter with no errors within ten minutes.

Most training courses will have a number of objectives. You measure the success or failure of the training course based on whether participants meet these objectives.

Four Levels of Training Evaluation

Experts usually distinguish among four levels of training evaluation, which were first published by Donald L. Kirkpatrick in 1959:

| | <i>Definition</i> | <i>Advantages</i> | <i>Disadvantages</i> |
|---|---|--|--|
| Level 1: Reaction | Measures participants' opinions about the course. This is the most common way to evaluate a course and provides a measure of customer satisfaction. | Low cost; easy to administer. Provides insights into participants' opinions. Provides quick feedback regarding successes and failures. | Reflects a quick reading of participants' opinions while they are still in class. Results may not be a solid basis for changing an educational strategy. |
| Level 2: Learning | Measures how well participants have mastered the course objectives. Can include tests of performance before and after the course. | Compared to reactions, this provides more compelling evidence of whether a training program works. | Compared to Level 1, requires more time, funding, and expertise to develop and implement valid measures of learning. |
| Level 3: Transfer to the job | Measures how the knowledge, skills, and values from a course are used on the job. Typically measured 3 to 6 months after training. | Provides stronger evidence that a training investment has the desired impact. | Compared to Levels 1 and 2, requires more time, funding, and expertise to develop and implement valid measures of transfer. |
| Level 4: Organizational impact | Measures performance improvement, quality improvements, and cost savings to an organization. | Provides the strongest possible evidence that a training program has the desired impact on an organization. | Substantial levels of investment and expertise are required to implement this level of evaluation successfully. |

Checklist:

What level of training evaluation do you need?

When it is time to decide which level of training evaluation should be used for a particular program, there are no simple rules to determine exactly which level you should use. For complex cases, the best guidance will come from experts in training evaluation. However, answer the following questions to get a preliminary idea:

| | | |
|---|-----------------------------|------------------------------|
| Is the training effort highly visible within DOT or to the general public? | <input type="checkbox"/> NO | <input type="checkbox"/> YES |
| Is there a high level of monetary investment in this training program? | <input type="checkbox"/> NO | <input type="checkbox"/> YES |
| Are more than 100 DOT employees being trained under this program? | <input type="checkbox"/> NO | <input type="checkbox"/> YES |
| Is the training program political? (For example, is it tied to an Executive Order?) | <input type="checkbox"/> NO | <input type="checkbox"/> YES |
| Does the training program use innovative techniques? | <input type="checkbox"/> NO | <input type="checkbox"/> YES |

| | |
|--|--|
| Consider using a Level 1 (Reaction) evaluation. | If you answered NO to every question If you answered YES to : 1 or 2 of the above questions 3 or 4 of the above questions All of the above questions |
| Consider using a Level 2 (Learning) Evaluation. | |
| Consider using a Level 3 (Transfer to the Job) Evaluation. | |
| Consider using a Level 4 (Organizational Impact) Evaluation. | |

Figure 3: Training Evaluation Checklist

Background: Level 1 (Reaction) Evaluation

In his book *Evaluating Training Programs: The Four Levels*, Donald Kirkpatrick (1994) provides the following guidelines:

- Determine what you want to find out.
- Design a form that will quantify reactions.
- Encourage written comments and suggestions.
- Get 100 percent immediate response.
- Get honest responses.
- Develop acceptable standards.
- Measure actions against standards, then take appropriate action.
- Communicate reactions as appropriate.

In a report analyzing training for DOT, Arthur Andersen made the following recommendations for Level 1 evaluations:

- 100 % of DOT courses should be evaluated at this level.
- Systematically assess the reactions of training participants and faculty.
- Develop a standard set of questions.
- Develop norms.
- Develop format for course specific questions.
- Balance quantitative and qualitative sections of your training questionnaire.

To perform a Level 1 evaluation, see the next few pages for a Job Aid and a sample form.

Job Aid: Level 1 (Reaction) Evaluation

The following six steps were adapted from *Diversity Training Evaluation Toolkit* (FAA Office of Human Resource Development, June 1994).

| | |
|---------------|--|
| Step 1 | <p>Plan the evaluation:</p> <ul style="list-style-type: none">• Most Level 1 evaluations use a rating scale of 1-5. This makes it easier to score and compare with other individuals and classes.• You can also include space for personal reactions to the course or instruction. |
| Step 2 | <p>Select the tool:</p> <ul style="list-style-type: none">• Based on how much information you need, select the Level 1 sample form to measure student reactions or create your own form. |
| Step 3 | <p>Adapt the tool:</p> <ul style="list-style-type: none">• Modify content: Reword, delete, or add items to accomplish your goal.• Modify the format: Change rating scale items to open-ended questions, or vice versa, depending on what kind of information you wish to obtain.• Student reactions: To obtain general reactions, ask open-ended questions. To obtain specific reactions to an objective or type of instruction ask detailed questions. |
| Step 4 | <p>Implement the evaluation:</p> <ul style="list-style-type: none">• Make enough copies for every student.• Assure students that the evaluations will be handled professionally and that student comments shall remain anonymous. Students must understand that their answers should be frank and honest and that the results will be used to plan future training programs. (When practical, someone other than the trainer should distribute and collect these forms.)• Make sure that every student completes the form. |
| Step 5 | <p>Analyze the results:</p> <ul style="list-style-type: none">• Rating scales: For each item, count the number of responses to each rating and find the average.• Short answer questions: Review the comments, categorize them based on similarities, and write a brief summary. |

Continued on next page

Job Aid: Level 1 (Reaction) Evaluation, Continued

Step 6

Prepare the report:

- Write a short “Class Evaluation Report” summarizing the results (see the sample at the end of this guide).
- Always compute mathematical averages of students responses, even if you need to convert them to numbers. If someone gives a rating outside the limits (e.g., “10” on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score).
- Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them.
- Send copies of the report to the trainer’s supervisor and to the DOT organization which funded the training.

Level 1 Evaluation

NAME (OPTIONAL) _____

COURSE _____ DATE _____

| | Poor (1) | Fair (2) | Good (3) | Very Good (4) | Excellent (5) |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| My level of understanding of the objectives and job relevance of this course before attending it. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Level of difficulty of the course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pace of the course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The degree to which the course objectives were accomplished. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The degree to which the course met my expectations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Quality of class discussion. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Quality of group activities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Relevance of the course to my job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Degree to which management and co-workers will support my use of skills and values from the course. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Consistency of materials and media with course objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overall quality of the materials (e.g., written materials, videos, etc.). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Instructor's ability to deal with conflict in a productive manner. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Level 1 Evaluation, Continued

Instructor's ability to deal with disruptive behavior.

Quality of individual feedback given to me.

Instructor's encouragement of my active participation.

Clarity of instructor's explanations and instructions.

Instructor's overall effectiveness

| Poor (1) | Fair (2) | Good (3) | Very Good (4) | Excellent (5) |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The most beneficial part of the course was _____

The least beneficial part of the course was _____

My suggestions for improvement are _____

Background: Level 2 (Learning) Evaluation

The following guidelines were taken from Level 2 (Learning) from Kirkpatrick's book, *Evaluating Training Programs: The Four Levels*.

- Use a control group, if practical.
- Evaluate knowledge, skills, and/or attitudes both before and after the program.
Use a paper and pencil test to measure knowledge and attitudes and use a performance test to measure skills.
- Get 100 percent response.
- Use the results of the evaluation to take appropriate action.

The DOT recommendations for Level 2 evaluations were taken from an Arthur Andersen study of DOT non-technical, non-military training ("US DOT Training Program Review, Final Report").

- 50% of DOT courses should be evaluated at this level
- Utilize learner assessment on a more limited basis
- Embed test items into Level 1 questionnaires

To perform a Level 2 evaluation, see the next few pages for a Job Aid and a sample form.

Job Aid: Level 2 (Learning) Evaluation

The following six steps were adapted from *Diversity Training Evaluation Toolkit* (FAA Office of Human Resource Development, June 1994).

Step 1

Plan the evaluation:

- Level 2 evaluation is used to determine if students have reached a satisfactory level of understanding and mastery of the course objectives. Indications for revisions to the course materials are also revealed.
- Talk to managers and others in your branch about the level of evaluation you propose and the costs and benefits of a full evaluation study.
- If your need for evaluation data is significant, plan a more sophisticated study and budget appropriately. In addition to questionnaires, such a study is likely to include pre- and post-tests of performance and/or interviews.

Step 2

Select the tool:

- Achievement measure: The most popular and accurate measures of learning outcomes are achievement measures.
- Self-report measure: When it is not possible to use the achievement measure, a self-report measure can be used. They do not have the objectivity of achievements measures, but do provide valuable information about class progress.

Step 3

Adapt the tool:

- Modify content: Reword, delete, or add items to achieve your goals and measure your learning objectives.
- Modify the format: Change rating scale items to open-ended questions or vice versa, depending on what kind of information you wish to obtain.

Continued on next page

Job Aid: Level 2 (Learning) Evaluation, Continued

Step 4

Implement the evaluation:

- Announce and explain the use of this evaluation and its purpose at the beginning of the course.
- Allow enough time to complete the evaluation.
- Participants turn in their evaluations when finished. You may have those who are finished leave the room so as not to distract others.

Step 5

Analyze the results:

- To analyze this self-assessment measure, subtract the “before” rating from the “after” rating.
- Total the results and divide by the number of items to find the average perceived gain for each individual. The higher the number, the greater the impact of the course.
- Use this process to find the average for the whole class or the aggregate of classes.

Step 6

Prepare the report:

- Write a short “Class Evaluation Report” summarizing the results.
- Always compute mathematical averages of students responses, even if you need to convert them to numbers. If someone gives a rating outside the limits (e.g., “10” on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score).
- Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them.
- Send copies of the report to the trainer’s supervisor and to the DOT organization that funded the training.

Level 2 Evaluation

NAME (OPTIONAL) _____

COURSE _____ DATE _____

| Course Objectives | Before Taking This Class | After Taking This Class |
|---|--|--|
| As a result of taking this course, I am able to: | Before taking (Course Name), my level of knowledge or competency for this objective is: | After taking (Course Name), my level of knowledge or competency for this objective is: |
| 1. <i>State the course objective here.</i> <i>Example:</i> Demonstrate how to use the mouse to select an icon in Windows. | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> |
| 2. <i>State the course objective here.</i> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> |
| 3. <i>State the course objective here.</i> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> |
| 4. <i>State the course objective here.</i> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> |
| 5. <i>State the course objective here.</i> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> | <div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> <div>Low Moderate High</div> |

Background Level 3 (Transfer to the Job) Evaluation

In his book *Evaluating Training Programs: The Four Levels*, Donald Kirkpatrick (1994) provides the following guidelines for Level 3 (Transfer to the Job) evaluations:

- Use a control group, if practical.
- Allow time for behavior change to take place.
- Evaluate both before and after the program if practical.
- Survey and/or interview one or more of the following: trainees, their immediate supervisor, their subordinates, and others who observe their behavior.
- Get 100 percent response or a sampling.
- Repeat the evaluation at appropriate times.
- Consider costs versus benefits.

In a report analyzing training for DOT, Arthur Andersen made the following recommendations for Level 3 evaluations:

- 30% of DOT courses should be evaluated at this level
- Identify level of evaluation for each program
- Establish schedule for routine follow-up of participants
- Increase ownership of participants to follow-up survey efforts

To perform a Level 3 evaluation, see the next few pages for a Job Aid and a sample form.

Job Aid: Level 3 (Transfer to the Job) Evaluation

The following six steps were adapted from *Diversity Training Evaluation Toolkit* (FAA Office of Human Resource Development, June 1994).

Step 1

Plan the evaluation:

- Decide whether you will evaluate to confirm the effectiveness of the course or to improve it. List specific values and skills that you will measure.
- Talk to managers and others in your branch about the level of evaluation you propose and the costs and benefits of a full evaluation study.
- If your need for evaluation data is limited or your budget is not sufficient for a full study, use the sample forms in this guide. This will permit you to collect limited data on Level 3 for a very low cost.
- Determine which employees will be included. Ideally, you should include everyone who has taken the course. If time and budget are a constraint, consider using a sample group.

Step 2

Select the tool:

- Post-training surveys: Questionnaires that are sent to employees and/or their managers one to three months after training. Their purpose is to determine which skills learned in the course are being used.
- Direct observation: Consists of checklists to record actual observations of employee application of skills learned in training.

Step 3

Adapt the tool:

- Modify content: Reword, delete, or add items to make them fit your learning objectives.
- Modify the format: Change rating scale items to open-ended questions, or vice versa, depending on what kind of information you wish to obtain.

Continued on next page

Job Aid: Level 3 (Transfer to the Job) Evaluation,

Continued

Step 4

Implement the evaluation:

- Two dates should be chosen, one soon after the training and one later.
- Send the evaluation and other relevant information to the employee.
- Send reminders to those who are slow to return the forms and keep records of the collected evaluations to ensure good return.
- Consider measuring both student responses and the responses of their managers or supervisors.

Step 5

Analyze the results:

- For each item, count the number of responses to each rating and find the average.
- Review the comments, categorize them based on similarities, and write a brief summary.
- Total the results and divide by the number of items to find the average perceived gain for each individual.
- Use this process to find the average for the whole class or the aggregate of classes.

Step 6

Prepare the report:

- Write a short “Class Evaluation Report” summarizing the results.
- Always compute mathematical averages of students responses, even if you need to convert them to numbers. If someone gives a rating outside the limits (e.g., “10” on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score).
- Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them.
- Send copies of the report to the trainer’s supervisor and to the DOT organization which funded the training.

Level 3 Evaluation

NAME (OPTIONAL) _____

COURSE _____ DATE _____

| Specific Task | Prepared | Use | Importance |
|--|--|--|--|
| | How well did the course prepare you to perform this task? | How often do you use this knowledge or skill on the job? | How important is this skill or knowledge to your job? |
| <i>State specific task here.</i> <i>Example: Use MS Word to create tables in reports.</i> | <input type="checkbox"/> Poorly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very well | <input type="checkbox"/> Seldom <input type="checkbox"/> Sometimes <input type="checkbox"/> Very often | <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much |
| <i>State specific task here.</i> | <input type="checkbox"/> Poorly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very well | <input type="checkbox"/> Seldom <input type="checkbox"/> Sometimes <input type="checkbox"/> Very often | <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much |
| <i>State specific task here.</i> | <input type="checkbox"/> Poorly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very well | <input type="checkbox"/> Seldom <input type="checkbox"/> Sometimes <input type="checkbox"/> Very often | <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much |
| <i>State specific task here.</i> | <input type="checkbox"/> Poorly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very well | <input type="checkbox"/> Seldom <input type="checkbox"/> Sometimes <input type="checkbox"/> Very often | <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much |
| <i>State specific task here.</i> | <input type="checkbox"/> Poorly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very well | <input type="checkbox"/> Seldom <input type="checkbox"/> Sometimes <input type="checkbox"/> Very often | <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much |

Background: Level 4 (Organizational Impact) Evaluation

In his book *Evaluating Training Programs: The Four Levels*, Donald Kirkpatrick (1994) provides the following guidelines for Level 4 (Organizational Impact) evaluations:

- Use a control group, if practical.
- Allow time for results to be achieved.
- Measure both before and after the program if practical.
- Repeat the measurement at appropriate times.
- Consider costs versus benefits.
- Be satisfied with evidence if proof is not possible.

In a report analyzing training for DOT, Arthur Andersen made the following recommendations for Level 4 evaluations:

- 10% of DOT courses should be evaluated at this level
- Limit the goal of conducting Level IV evaluation
- Adopt a Return on Expectations (R-O-E) in lieu of Return on Investment (R-O-I)
- Determine secondary sources of data

To perform a Level 4 evaluation, see the next few pages for a Job Aid and a sample form.

Job Aid: Level 4 (Organizational Impact) Evaluation

The following six steps were adapted from *Diversity Training Evaluation Toolkit* (FAA Office of Human Resource Development, June 1994).

Step 1

Plan the evaluation:

- Level 4 evaluation is used to determine whether any organizational benefits have resulted from the training. The goal is expressed in terms or organizational results which are measured and can be related to training. Results can be in the form of perceptions, performance improvements, or financial benefit.
- Talk to managers and others in your branch about the level of evaluation you propose and the costs and benefits of a full evaluation study.
- Determine which employees will be included. You should include everyone who has taken the course. If time and budget are a constraint, consider using a sample group.

Step 2

Select the tool:

- Post-training surveys: Questionnaires that are sent to employees and/or their managers after training. Their purpose is to determine which skills learned in the course are being used.
- Direct observation: Consists of checklists to record actual observations of employee application of skills learned in training.

Step 3

Adapt the tool:

- Modify content: Reword, delete, or add items to make them fit your learning objectives.
- Modify the format: Change rating scale items to open-ended questions, or vice versa, depending on what kind of information you wish to obtain.

Step 4

Implement the evaluation:

- Organizational results are usually observed 3 to 6 months after the training.
- Send the evaluation to managers who can observe organizational results.
- Send reminders to those who are slow to return forms and keep records of the collected evaluations to ensure good return.

Continued on next page

Job Aid: Level 4 (Organizational Impact) Evaluation, Continued

Step 5

Analyze the results:

- For each item, count the number of responses to each rating and find the average.
- Review the comments, categorize them based on similarities, and write a brief summary.
- Total the results and divide by the number of items to find the average perceived gain for each individual.
- Use this process to find the average for the whole class or the aggregate of classes.

Step 6

Prepare the report:

- Write a short “Class Evaluation Report” summarizing the results.
- Always compute mathematical averages of students responses, even if you need to convert them to numbers. If someone gives a rating outside the limits (e.g., “10” on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score).
- Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them.
- Send copies of the report to the trainer’s supervisor and to the DOT organization which funded the training.

Level 4 Evaluation

STUDENT NAME (OPTIONAL) _____

NAME OF SUPERVISOR OR MANAGER (OPTIONAL) _____

COURSE _____ DATE _____

I TOOK THE COURSE. ☐

I SUPERVISE THE STUDENT NAMED ABOVE. ☐

| Organizational Result | Rating | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Strongly Disagree | | | | Strongly Agree |
| 1. State desired organizational result here. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: Using computers is part of my everyday job. | | | | | |
| 2. State desired organizational result here. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. State desired organizational result here. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. State desired organizational result here. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. State desired organizational result here. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Class Report for a Level 1 Evaluation

Class: CDI Supervisor Training
Dates: August 20-21, 1996
Instructors: Mary Smith, Jim Jones
Students: 12

Evaluation averages:

| | |
|------------------------|-----|
| Relevance to your job | 4.8 |
| Clarity of objectives | 4.7 |
| Course length and pace | 4.6 |
| Course materials | 4.6 |
| Instructors | 4.9 |
| Facilities | 4.2 |
| Overall quality | 4.8 |

Scale: 1 = Poor, 2 = Satisfactory, 3 = Good, 4 = Very good, 5 = Excellent

Student Comments:

“I would have liked more time on the case studies.”

“This class has done a great deal to increase my overall knowledge and confidence as a supervisor.”

“Instructors were very helpful given the wide disparity of levels of knowledge!”

“Terrific; this information will help me in my new job.”

Special issues:

One student left class at lunch on the second day due to illness and did not complete the final test or fill out an evaluation form.

Evaluations:

For More Information

For more sample evaluation forms and step-by-step instructions on when and how to perform evaluations at each level, see:

The Federal Aviation Administration, Assistant Administrator for Human Resource Management. "How to Do Training Evaluation: A Practical Handbook." October 1994.

For additional tools for planning and conducting training evaluations, see:

United States Office of Personnel Management, Human Resources Development Group, Office of Research and Information. "Establishing the Value of Training: Resource Guide." March 1994, HRDG-023.

For more information on the DOT study of non-technical, non-military training, see:

Arthur Andersen & Co. "US Department of Transportation, Training Program Review, Final Report." February 1996.

For a general overview of the four levels of evaluation, see:

Kirkpatrick, Donald L. *Evaluating Training Programs: The Four Levels*. San Francisco: Berrett-Koehler Publishers, 1994.